

INTERNATIONAL SEARCH REPORT

PCT/IB2004/004112

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01M8/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 04, 2 April 2003 (2003-04-02) & JP 2002 352837 A (NISSAN MOTOR CO LTD), 6 December 2002 (2002-12-06) cited in the application abstract	1-9
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 458 (E-1596), 25 August 1994 (1994-08-25) & JP 06 150952 A (ISHIKAWAJIMA HARIMA HEAVY IND CO LTD), 31 May 1994 (1994-05-31) abstract	1-9
P,A	EP 1 414 091 A (NISSAN MOTOR CO., LTD) 28 April 2004 (2004-04-28) the whole document	1-9

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

8 April 2005

Date of mailing of the international search report

19/04/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Götz, H

INTERNATIONAL SEARCH REPORT

PCT/IB2004/004112

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
JP 2002352837	A	06-12-2002	NONE		
JP 06150952	A	31-05-1994	JP	3399566 B2	21-04-2003
EP 1414091	A	28-04-2004	JP	2004146114 A	20-05-2004
			EP	1414091 A2	28-04-2004
			US	2004076860 A1	22-04-2004